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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,361	11/06/2003	Melissa Lee Merlau	A01462	8529
21898 7590 09/05/2007 ROHM AND HAAS COMPANY PATENT DEPARTMENT 100 INDEPENDENCE MALL WEST PHILADELPHIA, PA 19106-2399			EXAMINER BARHAM, BETHANY P	
			ART UNIT 1615	PAPER NUMBER
			MAIL DATE 09/05/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/702,361	Applicant(s) MERLAU ET AL.	
	Examiner Bethany P. Barham	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Summary*

Receipt of Applicant's Response filed on 08/28/2007 is acknowledged. Claims 1 and 7 are pending. Claims 1 and 7 are rejected.

## MAINTAINED REJECTIONS

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over 2004/0057923 A9 ('923) or US 2003/0147833 A1 ('833).

The limitations of claims 1 and 7 are taught by '923 or '833:

- Both '923 and '833 teach a reshapable hair styling composition comprising, optionally in a cosmetically acceptable vehicle, at least one (meth)acrylic copolymer which comprises: (a) units derived from at least one monomer chosen from butyl (meth)acrylate monomers, (b) units derived from at least one monomer chosen from hydroxy alkyl (meth)acrylate monomers, and optionally

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units derived from at least one monomer other than the (a) and (b) monomers (abstracts and claims 1-2). Both applications teach at least one additional constituent is chosen from a cationic, anionic, nonionic and amphoteric polymers ('923 claims 21-22 and '833 claims 20-21).

- Both '923 and '833 teach that the at least one (meth)acrylic copolymer comprises (a) n-butyl (meth)acrylate, (b) 2-hydroxy ethyl (meth)acrylate and (c) can be methyl (meth)acrylate, ethyl (meth)acrylate, (meth)acrylic acids, etc. ('923 claims 3-12 and '833 claims 3-12). '923 also teaches that (a) can be from about 10 to about 90 weight %, (b) from about 2 to about 50 percent (pg. 1, [0006]).
- The cationic, anionic, nonionic and amphoteric polymers of both '923 and '833 at taught to include: cationic conditioning polymers like Gaffix VC 713 (Tg 85°C, '923 pg. 6, [0062]),
- anionic polymers like acrylate copolymers Acrylidone LM and Luvimer 100 P (Tg ~95°C), Gantrez AN or ES (Gantrez ES 425), Resin 28-2930, Flexan 130 (Tg 112°C, '923 pg. 9-10 [0108, 0111, 0117, 0119-0120]);
- amphoteric polymers including Amphomer LV 71 or Lovocryl 47 (Tg 130°C, '923 pg. 11 [0131]),
- and nonionic polymers including PVP, PVP/VA (Tg 98°C), polyurethanes (Tg 74.5-120°C), etc ('923 pg. 13-14 [0158-0161, 0171]).
- Examiner respectfully points out that the polymers taught by '923 and '833 are taught by applicants specification Table 1 to have acceptable high Tg for the 'first polymer', pg. 12-13, and thus, like the instant application, the difference in Tg

between the first polymer, an acid-functional polymer, and the second polymer, a copolymer, can be 40° C or more.

- '923 and '833 teach further constituents chosen from reducing agents, silanes, fatty substances, thickeners, plasticizers, anti-foam agents, fillers, sunscreens, etc ('923 claims 21 and '833 claims 20). '833 teaches that the composition is in a form chosen from sprays, aerosols, mousses, gels, sticks, muds, lotions, creams, dispersions, and emulsions (claim 23) and both teach that the composition is "reshapable" providing hair styling that can be restored or modified without new material or heat being applied and is long lasting 10-24 hours without drooping or loss of setting ('833 pg. 2 [0018] and '923 pg. 3 [0026]).
- '923 and '833 do not teach the at least one (meth)acrylic copolymer with a Tg of 20-35°C or a film of specific tensile strength modulus, but do teach in claims 20 a Tg from about -100°C to about 15°C.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look to '923 and '833 for a composition with cosmetically acceptable vehicle, at least one (meth)acrylic copolymer, and a second polymer for hair styling. One of ordinary skill in the art would know how to optimize the ranges of the Tg for the at least one (meth)acrylic copolymer of '923 and '833, as the MPEP 2144.05 states "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." Especially, since the art teaches a Tg of about 15°C, which reads on the instant claim 1 of Tg of 20°C and one of ordinary skill in the art would know how to obtain a specified glass

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transition phase given workable ranges of the monomers disclosed in '923 and '833. Furthermore, both '923 and '833 teach that the hair styling composition is 'reshapable' without new material or heat being applied and is long lasting 10-24 hours without drooping or loss of setting and '833 teaches fixing products such as sprays, gels, mousse, etc which are known in the art to form films and since the specific secondary polymers are disclosed and the monomers of the first polymer taught by the art it would have been prima facie obvious to make the composition of the instant application.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1 and 7 have been considered but not persuasive. Applicant argues that a range of T<sub>g</sub> that extends to about 15 °C, does not read on the instant claim 1 "second polymer or polymer mixture with a T<sub>g</sub> from 20 to 35 °C." The Examiner respectfully disagrees as about 15 °C as taught by '923 and '833 can indeed include a T<sub>g</sub> of greater than 15, furthermore the polymers and polymer mixtures as instant claimed are included in the inventions of '923 and '833, and would thus have similar T<sub>g</sub>. Because '923 and '833 teach a range of T<sub>g</sub> that is so close to applicants and monomers that are the same as applicant it would have been obvious to obtain the second polymer as claimed in the instant invention. With respect to the 'first polymer', Applicant argues that '923 and '833 teach that this component is optional and therefore it is not obvious. However, the Examiner respectfully points out and has outlined above in the rejection the numerous 'first polymers' exemplified in '923 and

'833 that are capable of being combined with the 'second polymer' and are further as taught by applicant in the instant specification as meeting the requirements of the 'first polymer'. The Tg's of these 'first polymers' of '923 and '833 are specifically within the range as claimed in instant claim 1 and are further specifically pointed to in the instant specification Table 1. With so many of these 'first polymer' components being taught, and combined with the '923 and '833 'second polymer' (such as Amphomer LV 71 or Lovocryl 47 (Tg 130°C, '923 pg. 11 [0131]) taught above), it would have been obvious to combine with the 2 polymers as taught by '923 and '833.

### ***Conclusions***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

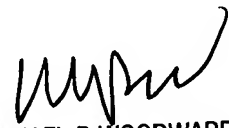
***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bethany P. Barham whose telephone number is 571-272-6175. The examiner can normally be reached on M-F from 8:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bethany Barham  
Examiner 1615

  
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